ART. XXIV.—*Guy's Hospital Reports.* Edited by C. HILTON FAGGE, M. D., and ARTHUR E. DURHAM. 8vo. pp. xviii., 524. London: John Churchill & Sons, 1869.

WE shall invite attention first to the medical papers contained in this volume.

Cases of Transfusion, with some Remarks on a New Method of Performing the Operation. By J. BRAXTON HICKS, M.D., F.R.S.

It seems at first thought rather extraordinary that the operation of transfusion originally proposed by Dr. Harwood nearly a century ago, should have been so seldom performed, but a careful review of all the difficulties attendant upon the operation will sufficiently explain the infrequency of its employment. Among these difficulties may be mentioned the impossibility of laying down any rules as to the exact time when it should be resorted to, for a loss of blood which would be scarcely felt by a young and vigorous woman would cause the death of an older patient, especially if it took place quickly; the fact that the uterus very frequently remains uncontracted, and the blood which is thus introduced may escape from the system; the absence, especially among the poor, of the proper appliances; the difficulty of obtaining a full supply of blood from the husband or other friend of the patient, who when brought into the room is so much agitated that the flow of blood is decidedly interfered with; and the coagulation of the blood by which the syringe is obstructed, or clots are driven into the circulation. Dr. Hicks, therefore, proposes the following procedure: three ounces of the fresh phosphate of soda are dissolved in a pint of water; some of this will crystallize out, but when required for use it will rapidly redissolve, if immersed in warm water, at 100° Fahr. The proportion of the solution to the blood employed should be about one-fourth. When required for use it should be added to a sufficient quantity of boiling water to raise its temperature to that of the blood, and should then be placed in the receiving vessel and gently stirred during the flow of blood, avoiding of course the formation of bubbles. The object of the addition of this saline solution to the blood is to prevent coagulation. It is not itself injurious, on the contrary, it may be of advantage to the patient, while its admixture with the blood enables the person from whom the blood is taken to remain in an adjoining room. It may be objected to this procedure, that the phosphates will prevent the coagulation of blood in the uterine sinuses, but it is to be recollected that the amount injected is always small as compared with the whole mass of the blood, and the salt is certainly not present in sufficient quantity to produce the solution of a clot already formed. The instrument employed in the operation is "the gravitation one of Dr. Hamilton with a ball in the centre to assist the flow when compressed." Six cases are reported, two in which transfusion was performed by the old method, and four in which the new was employed; of the latter, one recovered completely after the operation, and another lived for eight days.

Some Remarks on the Nature and Causes of Disease. By SAMUEL WILKS, M. D.—The object of this paper is to show the much greater importance of the predisposing than the exciting causes of disease. The term predisposition to disease applies to those inherent tendencies to change in the tissues of the body which develop themselves whenever any exciting cause sets them in action. Of late years the subject has not attracted the attention it deserves, simply because the exploratory methods of diagnosis at present at our command, make a knowledge of the patient's habits, temperament, &c., not absolutely necessary to the forming of a correct diagnosis. A study of morbid anatomy, on the other hand, must have an opposite effect, for a disease which seems to be purely local and excited only by local causes is very often found to be merely the expression of a general degeneration. No medical education can therefore be complete, Dr. Wilks thinks, which does not include instruction in the causes which are likely to produce lesions of a general character; for such instruction not only leads to the correct recognition of disease, but to its prevention. We have constantly an opportunity of verifying the fact that the predisposing causes are often sufficient to bring about a disease in persons who are most carefully guarded from all these causes which are generally set down as exciting, and this is perhaps as often seen in rheumatism as in any other disease.

Dr. Wilks believes that it is possible to distinguish the sanguine, arthritic, strumous, nervous, bilious, and lymphatic temperaments. In speaking of the strumous temperament, he expresses the opinion that two distinct diatheses have been included under this term in the following words: "When a student, I had a difficulty in associating the two together, and failed to understand how the small, ill-developed child with pot-belly, crooked legs, blear eyes, sore lips, enlarged lymphatic glands, and decayed teeth, altogether dull in body and mind, could be identified with the young person twenty years of age, dying of consumption, who was tall, well developed, with straight limbs, fine skin, good teeth, and with a highly active intellect." The inclination or otherwise towards certain articles of food may sometimes afford us valuable indications in diagnosis, and much may be gained either by moderating an appetite, as for example, the taste for alcohol in persons predisposed to gout, which tends to the production of a certain class of diseases, or by encouraging patients with phthisis to eat articles of food, as the fats, which have the tendency to keep the diathesis in check.

There are some other points alluded to in this admirable paper which we are unable to notice in full. Very erroneous notions of the proper treatment of disease have been engendered by the different senses in which the word fever is used, for it is used not merely to designate a condition common alike to the specific diseases and the phlegmasiæ, but also some of these specific diseases themselves. Thus it is common to speak of typhoid fever and typhus fever, when fever is really not a more prominent condition in them than in smallpox or scarlatina. It would be better to use a substantive expression to designate typhoid fever (for which Dr. Wilks proposes enterica) and the other fevers, or else to speak of pneumonia and pleurisy as pulmonary and pleuritic fevers.

The views expressed of the causes of phthisis differ somewhat from those usually accepted. Exercise, which is generally recommended to persons of consumptive habits, is, we are told, frequently the exciting cause of the malady, by inducing excessive action of the lungs. In all conditions, on the other hand, attended with deficient aeration of the blood, tubercle is rare.

Clinical Therapeutics. By S. O. HABERSHON, M. D.—Like Dr. Wilks, Dr. Habershon insists upon the importance of knowing the previous history of every patient committed to our care, but dwells more upon its importance as a guide to a proper treatment. The family history, and the antecedent conditions of actual diseases should all be learned. In regard to the latter we are told, "the antecedent disease may become perfectly quiescent. It may induce modification of all future morbid actions; it may have destroyed the integrity of some vital organ; or, it may be of a progressive character." There are some diseases which leave their impress upon the system in such a way as to modify all subsequent diseases, thus syphilis and ague have this tendency, the former predisposes to fibroid degeneration, while the latter, even after fifty years, will sometimes be found to give a periodicity to all diseases, however trifling. Dr. Habershon lays down certain rules for our guidance in the treatment of disease, which, as they are of universal application, we will quote in full.

(1.) The successive stages of the same disease are very apt to be mistaken for new ailments. (2.) Acute changes in the system are always modified by former diseases. (3.) The intensity of the influence of the former malady lessens according to the interval of time since the attack. (4.) When two diseases concurrently affect a patient, the one modifies the other in an important manner. (5.) A general affection has a more powerful effect than a local one. (6.) But a local disease, especially when symmetrical in character is the expression of a constitutional malady. (7.) When we attempt to relieve organic local disease by diminishing its more prominent symptoms, great care must be taken lest the original malady be increased. (8.) Any true antagonism of disease is very doubtful. (9.) The surrounding circumstances should conduce, if possible, to the restorative process. All these points have long been recognized in the diagnosis of disease, but have been overlooked in its treatment. In some cases it will be found that a patient has suffered from more than one previous disease; for instance, suppose a patient with rheumatism to have been affected with syphilis and ague. Now it will be a matter of importance to determine which of these diseases has preceded the other; for if the patient have suffered from ague, it would be proper to give quinia; if the contrary be the case, then iodide of potassium should be administered.

On Splenic Tumours. By C. HILTON FAGGE, M. D.—This paper contains the report of the case of a male infant twenty months old, who was affected with enlargement of the spleen and leucocythæmia. "The tumour was found to occupy the iliac and pubic regions, and was curved on itself so that the lower part of its notched anterior or inner edge looked upwards." At the post-mortem examination, the spleen was found of the same shape as noted during life. The child was a twin, its fellow having died of the same disease. The form of the spleen seemed to Dr. Fagge peculiar, and for the purpose of seeing whether it was the usual one in splenic enlargement, he examined several patients with this affection, with the result of finding that the organ had a tendency to assume this shape when enlarged. Five diagrams showing different degrees of enlargement accompany this paper. Drs. Bright and Aitken allude to this form of the spleen, but explain it incorrectly. According to Dr. Fagge, it is produced by the traction of the peritoneal folds which pass from the stomach and pancreas to the hilus of the spleen. An enlarged spleen has been mistaken for ovarian disease, principally from the fact that it may occasionally be found occupying the lower part of the abdomen, but if the explanation given above be remembered, the error of diagnosis may be avoided. A report of a case of leucocythæmia occurring so early in life is of course interesting.

On the Morbid Anatomy of Elephantiasis Græcorum. By W. MOXON, M. D.—One of the two cases of this disease reported in the last volume, that of the lad about nineteen years, terminated fatally on Feb. 16, 1868, and the present paper contains a very full account of the post-mortem appearance, which corresponded in many respects with those already described by Danielsen and Bœck, and also by Dr. Carter, but owing no doubt to the fact that the patient had passed the last two years of his life away from the natural haunts of the disease, there was not entire correspondence. The whole report of the case is well worth reading, but in all its details it would occupy more space than we can give it. We quote the following from Dr. Moxon's report: "On surveying generally the diseased conditions found in the body, we are struck with the small extent of morbid change proper to the leprosy. The immediate cause of death was amyloid or lardaceous disease of the alimentary canal, liver, kidney, and spleen, with marasmus in the most extreme degree. I am not aware that amyloid disease has been before noticed as occurring with leprosy." The vital organs were entirely free from those tubercles which are generally described as plentifully present in the very advanced stages. The condition of the larynx, fauces, soft palate, and nares, corresponded exactly with what is described as usually present in leprosy. The skin of all parts of the body had undergone excessive atrophy, so that a suture would not hold in it. Contrary to expectation, the nerves were found quite natural, perhaps a little smaller than usual or a little thicker in the sheaths. Some nodules which had been felt during life, and which had been supposed to have their seat on the nerves, were found to belong to the veins; the lymphatic vessels were not diseased, but the glands of the axillary and inguinal regions showed peculiar changes, which were curiously limited to spots in the glands corresponding to points of entry of the afferent lymphatics. "On the whole, this case brings prominently forward, as a distinguishing feature in leprosy, the excessive slowness of the process, and the little tendency to a fatal issue which it shows under its worse forms: indeed, if it killed more speedily it would lose much of its horrors, which it owes no doubt to the tedious and protracted suffering and miserable disfigurement which it brings upon its victim, while refusing to relieve him by a reasonably speedy access to that fatal termination, which is the only end it promises to his hopes." In addition to the changes noted above, there was diminution of the heart, which only weighed four ounces, corresponding with the extreme smallness of the heart in cancer, and showing that there was no poisoned condition of the blood present.

Two plates accompany this paper.

Toxicological Cases. By Thomas Stevenson, M. D.—This paper contains the details of six cases: in one case, hydrocyanic acid was the poison taken; in a second, extract of nux vomica; in a third, extract of belladonna; in a fourth, a quart of brandy; in a fifth, muriatic acid; and in the sixth, death occurred during the inhalation of chloroform. In the first case there was reason to believe that a drachm and a half of Scheele's acid had been swallowed, but death did not take place until an hour and a half after its ingestion. There was no autopsy made. In the second case, a boy was poisoned by the extract of nux vomica, which he put into his mouth under the impression that it was liquorice, but, discovering his mistake by its bitter taste, immediately spat it out. Well marked symptoms of poisoning, however, soon came on, and continued for five hours, notwithstanding that vomiting was excited as soon as possible. Recovery took place in about twelve hours. The urine which was passed five hours after the ingestion of the poison, was found to contain both strychnia and brucia. A solution of five grains of the extract of belladonna was drunk by a child two and a half years old, who recovered completely after the employment of the proper remedies. The report of the case of poisoning by brandy is interesting, because a reputed quart (about 26⅔ oz.), was swallowed undiluted by a boy only 14 years old, within a very short space of time. The stomach pump was used about 1¾ hours after the occurrence, and no doubt the boy owed his life to its prompt use. Complete unconsciousness continued for twelve hours. Recovery was delayed by a slight attack of pleurisy. The next case occurred to a man who drank half a wineglassful of hydrochloric acid in mistake for brandy. The usual symptoms followed: they were generally of a local character, and the man was discharged well at the end of seven days. In the last case, death happened during the administration of chloroform. After his death it was discovered that the man had nearly died eight years before during the administration of the anæsthetic, a fact which, although he had mentioned to some of the other patients he had carefully concealed from the operating surgeon. The autopsy disclosed ecchymoses, not only of the skin, but also of some of the internal membranes, apoplexy of the lungs, and great fluidity of the blood. A portion of the blood from the cranial cavity, and a part of the liver and kidneys, were submitted to chemical examination, and were found to contain chloroform. The muscular tissue of the heart showed signs of incipient "so-called fatty degeneration."

On Intestinal Obstruction. By C. Hilton Fagge, M. D.—During the last fifteen years (1854—1868 inclusive), the records of the post-mortem examination made at Guy's show that in a total of 4000 autopsies 54, or about 1.4 per cent., were of cases of intestinal obstruction. Before 1854 it was the custom to preserve the records of the autopsies only of the interesting cases, and although several of these are given in the body of the paper, no attempt has been made to draw important deductions from them.

Dr. Fagge thinks that, apart from external hernia, the various forms of intestinal obstruction fall naturally under six heads, which may be enumerated in the following order:—

1. Those in which the gut is plugged by its contents. 2. Intussusceptions or invaginations. 3. Strictures. 4. Contractions. 5. Volvuli, including folds and twists of the intestines. 6. Internal strangulations.

This classification may be easily made in the post-mortem room, but the distinction is very often difficult, if not impossible, during the lifetime of the patient. The shape of the abdomen varies very much with the position of the obstruction, and important deductions may often be drawn from it; but, on the other hand, if we were to establish our diagnosis on no better foundation than this, we should frequently be wrong. It is not, therefore, from any one sign or symptom that we are enabled to infer correctly the nature or seat of an obstruction, for a correct diagnosis cannot rest upon a single symptom, but can only be made from a consideration of the history of the case and of all the symptoms furnished by it. It is well known that diminution or suppression of the secretion of the urine is a very frequent accompaniment of intestinal obstruction, and that it more frequently attends obstruction of the small intestines than that of the large intestines. The explanation given by Dr. Barlow that it depends upon diminished absorption of liquids, and consequently is more intense, just in proportion to the vicinity of the obstruction to the pylorus is rejected by Dr. Fagge, and the explanation of Dr. Habershon, that it depends upon the incessant vomiting, which must necessarily diminish the amount of fluid to be absorbed by the gastro-intestinal surface, is only admitted in part. If diminished absorption or vomiting were the cause, why are not other secretions similarly affected? Now it is very well known that the mammary secretion is frequently abundant, while the urinary is almost suppressed. The explanation adopted is the same as that given by Mr. Sedgwick, of the suppression of urine in cases of poisoning from corrosive substances, and of perforation of the stomach or intestines, and rests upon the fact that in collapse, an influence is transmitted by the abdominal sympathetic which paralyzes the secreting action of the kidneys, but is of course without any such effect on organs beyond its influence. Now, experience has shown us that obstruction of the small intestines is often sudden and severe, so as to give rise to such an influence, while that of the large intestines is seldom so; hence suppression of urine is common in the former, rare in the latter condition.

Complete obstruction of intestines by gall-stones would appear not to be very common, for no such case has occurred at Guy's during the past fifteen years; and the same is to be said of intestinal concretions, masses of fruit-stones, or any foreign bodies lodged in the intestines. Many cases, however, are on record, the *Pathological Transactions* containing reports of at least six cases of fatal obstruction from gall-stones. It is rather singular that in the cases above referred to, the patients were all women, and their ages were 69, 69, 66, 58, 46, 27. The cases were characterized by a long duration and great intensity of the premonitory symptoms, great pain, incessant and severe vomiting, frequent and intermittent attacks, which sometimes seem to indicate that the gall-stone is obstructed here and there in its slow passage down the intestines, and the rapidity with which the last attack sometimes ends in death. The calculi are said very rarely to enter the intestines through the bile-duct, but generally directly from the gall-bladder through an ulcerated opening; hence the absence of jaundice in many of the cases. In some cases, however, large calculi are passed per anum after more or less severe suffering. In these cases there is reason to believe that the communication has formed between the gall-bladder and large intestines. Although our author is inclined to think that masses of undigested food or other ingesta, or of fecal matter, are never the sole cause of fatal constipation, he nevertheless agrees with Dr. Brinton, that their presence often constitutes an important element in the causation of obstruction in a strictured part of the bowel.

Intussusception is the form of obstruction next considered. During the past fifteen years, 7 autopsies were made in the Hospital, and these are, together with the autopsy in the case of a boy, who, after being for some time in the wards, was removed to his own house, reported in full. In 4 of these 8 cases the invagination was in the large intestines, in the remainder in the small intestines. The case in which death occurred out of the Hospital is one of the most interesting, as there is reason to believe that the disease was set up in consequence of a slight injury to the abdomen, and was manifested for a long time only by colicky pains, which came on paroxysmally, leaving him, between the attacks, moderately comfortable. It was not until after four months that strangulation developed itself; but, when once developed, it gave rise to very violent symptoms, and soon terminated in death. In another case, active symptoms did not occur until nine weeks after there was reason to believe that invagination had taken place. In intussusception of the small intestines there is generally a tumour to be felt to the right of the umbilicus, whereas in intussusception of the large intestines the tumour will generally first appear in the course of the colon, and finally descend into the left iliac fossa, or occupy the supra-pubic region, and will frequently be felt per rectum. In invagination of the small intestines strangulation takes place almost immediately, and the case generally terminates fatally in about eight days; in invagination of the large intestines, strangulation may not be developed until after months, but, when once developed, frequently leads to a fatal termination within two days. In the former, abundant hemorrhage from the bowels is frequent, and in some cases blood is vomited; in the latter, tenesmus, straining, and passing of bloody mucus is more common, but occasionally large quantities of blood may be lost. Among the causes of intussusception is mentioned any violence to the abdominal walls—as kicks, blows, etc.—and the possibility of its being caused by intestinal worms is admitted. If the lower extremity of a large worm should happen to be seized by the vermicular movement of the tube within which it lay, its other end being firmly fixed above, gradual invagination might be brought about. It is, at all events, not rare to find in the bowels, after death from this cause, quantities of lumbricoides.

Strictures of the intestines are next considered. During the past fifteen years, 17 cases occurred in which the fatal obstruction was due to stricture; 5 others, of which there are records preserved, being added to these, make 22, which were distributed as follows: in the rectum, 6; in the sigmoid flexure, 6; in the splenic flexure, 3; in the descending colon, 3; in the hepatic flexure of the colon, 1; in the ascending colon, 1; in the cæcum, 1; in the cæcum and ileum, 1; but in not a single instance was fatal obstruction caused by a stricture entirely in the small intestine. In each case the stricture was caused by cancerous disease. Of all the forms of intestinal obstruction, stricture is accompanied by the most marked array of symptoms, so that we are generally able to distinguish it from other forms of stoppage of the bowels. The disease is never acute. Constipation comes on suddenly; vomiting is rare; the urine is abundant; and there is an absence of collapse. The finger introduced into the rectum, will sometimes detect the seat of obstruction when it is low down; in other cases, the passage of tape-shaped feces will sometimes make it evident to us. Dr. Fagge does not think that we can draw any safe inference as to the seat of obstruction from the amount of liquid that can be injected, or from the distance we can pass a bougie; for sometimes a stricture will permit the passage of liquid upwards, while it prevents the onward passage of the feces, while a bougie may be caught in the fold of the mucous membrane, or turn on itself. The seat of the tumour also does not indicate the seat of the obstruction, for it has been found that in these cases there is a greater accumulation of feces in the cæcum than in any part of the bowel which intervenes between it and the strictured part.

Those cases placed under the title of Contractions have not received their due share of attention, although they are by no means infrequent. As our readers may not be aware what kind of cases are generally placed under this head, we quote Dr. Fagge's definition in full: "Under this head I place a large number of cases, often confounded with strictures, but differing from them in some important respects. In these instances the disease begins, not within the intestinal coats, but on their exterior; sometimes on the serous surface of the intestines, sometimes in the mesenteric glands. The obstruction, when it occurs, arises, not merely from a narrowing of the calibre of the bowel, but partly from the adhesion of one coil to another, or to some other structure, or from puckering and contraction of the mesentery." Whenever the obstruction is chronic, and it is evident that it affects the small intestines, the diagnosis of contraction may be made; and we may generally make a diagnosis of chronic disease even if we do not see the case until the obstruction has become complete, by the fact that in most of these cases the peristaltic motions of the intestines are distinctly seen through the abdominal walls; and this is believed only to take place when the muscular coat of the intestines has become hypertrophied. Of course, hypertrophy may occur as a consequence of stricture, but stricture of the small intestines is rare, contraction frequent. We are not likely to have, in this variety of obstruction, suppression of the urine or collapse.

Under the head of Folds or Twists of the Intestines, and Volvuli, are placed "all those cases in which an obstruction is due neither to plugging from within, nor to an invagination, nor to an interstitial growth, nor to an adhesion and consequent contraction by lymph, or other new formation; nor, lastly, to constriction from without—but simply to a folding or twisting of the bowel upon itself, so that its calibre is closed by the pressure of a part of the intestine more or less directly continuous with it, or by that of its mesentery." Wherever there is a twist of the bowel, the part of the mesentery attached to it may become inflamed, and the supply of blood being cut off from a part of the bowel, may induce gangrene; and hence there is a great variety in the symptoms of this form of obstruction—greater, perhaps, than in any other. The cases are, however, apt to run a very rapid course, and to present very intense symptoms, no matter whether the volvulus is in the small or large intestines; it is, in fact, this form of obstruction of the large intestines which presents most resemblance to the acute strangulation of the small intestines.

Internal strangulation by a band, diverticulum, appendix, or other body invested with peritoneum, has been the cause of 17 cases of obstruction, 13 of which took place during the last fifteen years. In this form are included all those cases in which a knuckle or loop of the intestines is strangulated by a body unattached to the surface of the constricted part. In the 17 cases of which records are preserved at Guy's, the seat of the constriction was in every case the small intestines; but there are reported cases in which the sigmoid flexure, the colon, and cæcum, have been the part involved. In these 17 cases the constricting agent was—

(1) In 5 cases a peritoneal band, generally connected at one extremity with the mesentery.

(2) In 3 cases a band derived from the omentum, or the margin of an aperture in that membrane.

(3) In 1 case an arch formed by the mesentery of a coil of ileum descending into the pelvis.

(4) In 1 case the pedicle of an ovarian tumour.

(5) In 1 case a band or bands connected with the vermiform appendix.

(6) In 5 cases a diverticulum from the ileum, with a band attached to its extremity.

(7) In 1 case the neck of an internal hernial pouch.

Strangulation may also occur at the margin of an aperture formed by injury or disease of the abdominal parietes or of some viscus.

It is, of course, very important to be able to distinguish obstruction arising from internal strangulation from that due to other causes, for it is in this form that operative interference is most often attended with success. A positive diagnosis is in many cases difficult, if not impossible, as the symptoms are by no means characteristic or constant. The following points, however, will generally be of service: "The sudden and definite onset of the patient's illness; the occurrence of collapse at its commencement; the comparatively early age; the severity of the pain, which is generally referred to the umbilicus; besides certain negations, namely, the absence of external or of discoverable obturator hernia; the absence of precursory symptoms and of visible peristalsis (such as occur in strictures and contractions); the absence of tumour, hemorrhage and dysenteric symptoms (such as are seen in intussusceptions); and the absence of that extreme intensity and rapidity which belong to the more acute forms of volvulus." Perhaps it is the latter condition which is most frequently confounded with internal strangulation; but the mistake is of little consequence, as an operation is thought by many justifiable in volvulus, although it must be admitted that the chances of recovery after it are but slight. On the other hand, in contractions and intussusceptions, an operation can only do harm, and the possibility of the disease being of this nature should be well considered before the abdomen is opened. It will be interesting to know that in the fifteen years in which accurate records of all the post-mortems made at Guy's have been preserved, that of 54 cases of obstruction, 13, or 25.5 per cent. were due to internal strangulation. The proportion given by Dr. Brinton is somewhat higher, but there is reason to believe that he has included some cases which are more properly classed with contractions.

We have endeavoured, in the short space which is at our disposal, to give a *résumé* of this very valuable and interesting paper; but there is, of course, much information which we could only indicate, and any one to whom these reports are accessible, will derive much instruction by a perusal of the carefully reported cases which they contain.

On the Early Indications of Nephritic Irritation. By G. Owen Rees, M. D., F. R. S.

Many years ago Dr. Rees directed attention to the fact that the extractive matters of the blood were found in the urine in cases of albuminuria in varying amount, but always bearing a direct proportion to the amount of albumen. More recently, however, he has discovered that the appearance of the extractives precedes that of the albumen, and that their early detection will frequently permit such precautions to be taken as will prevent the occurrence of albuminuria, or, in other words, of organic disease of the kidneys. Three cases are then detailed; in the first, the appearance of the extractives was followed by that of albumen, and in at least one of the others there was reason to think that albuminuria was successfully warded off. It is further well known, that a return of a calculous affection is frequently made known by the appearance of albumen in the urine; in some cases, however, in which no albumen was found, the extractives were present. The test for the presence of the extractives is the tincture of nutgalls, which throws down the extractive matters immediately after its addition to the urine. The precipitate which takes place five or ten minutes later is of the earthy and potash salts, and is caused by the spirit contained in the tincture. J. H. H.

We shall now invite the attention of our readers to those papers which appear to be more particularly addressed to surgeons, and the first of these is *On the Physiology of Binocular Vision.* By Joseph Towne.

This is a continuation of previous papers on the same subject, the last of which appeared in vol. xii. of the current series of the Reports, not in vol. xiii as incorrectly stated in a foot-note to the present number. Mr. Towne's remarks are very interesting, and, we believe, entirely just; his paper is, however, one of which it is almost impossible to give a satisfactory abstract, which we regret the less since it is not sufficiently practical, according to our notion, for the pages of a volume of hospital reports. One or two points which Mr. Towne seems to have established, we may nevertheless note for the edification of our readers: "It rests," he says, "upon irrefragable evidence, that so far as the eyes act in concert, the two right and the two left halves of the retina, each pair respectively, act together;—that these sections of the retina are identical both in direction, and also in colour sensation, that they are so from causes inherent in our nature, and that the result is essentially connected with structural arrangement." Again, "The retinal field is divided into distinct regions, and . . . agreeing with these separate regions, are corresponding modifications of vision. . . . The central and brightest section of the common field of vision is bounded on either side by a spot insusceptible to light impression . . . the perception of *form* is lost at a point much nearer to the centre of vision than that of colour." We would respectfully commend the whole of this paper to the attention of such of our readers as are interested in the physiology of the eye. A diagram and several illustrative figures accompany Mr. Towne's essay.

We find next a paper *On Rupture of the Ureter.* By Alfred Poland.

The patient whose case is here narrated was a woman, 33 years old, in the fifth month of pregnancy. She was caught at the level of the umbilicus between a platform and the step of a railway carriage in slight motion, and slowly twisted around, so that her whole body described a half revolution. The accident happened about midnight of the 21st of January; she was immediately taken to Guy's Hospital, where she aborted on the 26th, dying the next day, 135 hours from the time at which she was injured. During her short residence in the hospital, she suffered from constant vomiting, with abdominal pain; passing no water, except on one occasion, and then very little. A small tumour over the site of the injury was found to contain intestine which had escaped through a rent in the rectus muscle, but could easily be replaced. At the post-mortem examination, the right ureter was found torn across just below the pelvis of the kidney, which organ was itself lacerated, being separated from its capsule by a large clot. The right supra-renal capsule was likewise the seat of extravasation. "The left kidney was in a very remarkable condition; it had a buff-pink colour, or rather a yellow-clay colour, very opaque and dead-looking; the colour was like that of a fatty kidney, but the dead yellowishness was more striking. On section it was found that the whole of the vessels were blocked up with ante-mortem clots; this extended in the artery as well as in the veins into the principal vessel, near its division, where in the vein it was unadherent, but in the artery, adherent firmly to the walls, as though it had long been present; there was no wound of the arterial coats." Besides the visceral lesions, the transverse processes of the three upper, and the spinous processes of all the lumbar vertebræ were fractured, as well as both twelfth ribs, the left in two places. For purposes of comparison, Mr. Poland quotes briefly two cases of ruptured ureter observed by Mr. Stanley, and one by Mr. Hilton. Two cases of gunshot wound of the ureter are likewise added, in one of which (taken from Hennen) recovery ensued. The causes and symptoms of the lesion are well discussed, and the following indicated as the results to be expected. 1st. "A fatal termination early, where other complications exist . . . and this whether the peritoneal cavity be or be not involved. 2d. The subsequent formation of abscess or softening down clot mixed with urinary secretion, which may be evacuated with success. . . . 3d. The existence of a urinary fistula in the loin, although we have no record of the fact." The treatment should be conducted upon ordinary principles, an early opening with a trocar being made in case of the appearance of abscess or swelling with fluctuation.

The next paper is by W. MOXON, M. D., and is called *Two Cases of Thrombosis of the Renal Vessels through Injury to the Lumbar Spine, with General Remarks on Thrombosis.*

The first case is that already detailed by Mr. Poland in the preceding paper, and the second is a somewhat similar one which was observed in Guy's Hospital in 1865. This paper is of great interest, and deserving of careful study. "Practically," says Dr. Moxon, "we meet with ante-mortem clots or *thrombi* arising *in situ* within the vessels under four conditions. . . . The first condition is simple, and arises from quiescence of the blood; the second arises from complex causes, among which quiescence preponderates; the third also from complex causes, in which irritation preponderates; and the fourth condition is probably nearly always a misinterpretation. I mean that in the fourth sort of cases, though observers have thought that the clots they saw had formed in the vessels in which they found them, yet probably those clots had been conveyed into the vessels from elsewhere; in other words, were *emboli*, and not *thrombi*."

From clots formed under the first condition above mentioned, arise the so-called *phleboliths* of veins in various parts of the body. The second variety is that occurring in cases of phthisis and of malignant abdominal or pelvic tumours. Here, as in the former instance, there has been stagnation of blood, but the vein wall is thickened, and the clot adherent; and the history of the case shows that coincident with the formation of the clot, there has been pain with perhaps other symptoms of phlebitis. Dr. Dickinson has adduced the phthisical thrombus as an instance of clotting due to blood change. Upon this point Dr. Moxon advances the following theory, which seems to us eminently reasonable. "1. The juices which are taken up in the diseased lungs and mix with the blood give it a pernicious quality—a tendency to set up, wherever the blood goes, an inflammation similar to that progressing in the lungs. 2. But this tendency is capable of being counteracted by those healthy changes in the blood which it undergoes during its circulation through the depurating organs generally. 3. Now, in those parts where conditions of stagnation exist, this purifying process is far less completely carried out than elsewhere in parts that have active circulation, and this, of course, to the last degree in parts where complete stasis is established. 4. Putting these three reflections together, I think it will be difficult to escape from the conclusion that the inflammation is set up in the stagnating veins of the consumptive, by the lymph which is formed in and absorbed from the substance of the inflamed lung, and which is not purified in the said stagnating veins because of want of circulation there."

The third class of cases are those which occur in the course of fevers, and in pregnancy, or after delivery; it is in these cases that sudden death from embolism is likely to occur. Coagulation is here, in Dr. Moxon's opinion, secondary to the phlebitis, excited, as in the second class of cases, by noxious material produced by the febrile process, or absorbed from the uterine surface.

"The fourth class of cases are chiefly such as we find on record as cases of coagulation of blood within the arteries *in sitû*, especially in the pulmonary artery or the cerebral arteries." These cases, Dr. Moxon believes, are really instances of *embolism*, not of *thrombosis;* he refers particularly to Dr. Dickinson's cases published in the first volume of *St. George's Hospital Reports* [see No. of this Journal for July, 1867, p. 196] as illustrations of the point in question. With regard to the confusion, which, as Dr. Moxon very justly remarks, seems to exist in the professional mind as to the words *thrombosis* and *embolism*, we cannot help thinking that "a better general knowledge of the relative meanings of the words" themselves "is required in order that we may get more satisfactory descriptions of cases that are published;" if the true meaning of the words were better understood, we should not so often, as we do now, hear of splenic or pulmonary *thrombosis* dependent on cardiac *embolism*.

Though Dr. Moxon doubts the frequency of arterial coagulation *in sitû*, yet he believes the two cases which form the text of his paper, to really belong in this category, and explains the clotting in these cases as due to the local injury which was present in each instance. "If Professor Brücke's theory of the cause of *fluidity* of the blood—and it is this point which needs inquiry rather than the cause of *coagulation*—be correct, and the blood, indeed, depend for its fluidity on the life of the containing parts, then we see a cause of coagulation in any occurrence which sufficiently lowers the vitality of the part concerned, and on this principle the explaining power of a blow from a railway engine seems unlimited."

The next paper is *On Homicidal and Suicidal Wounds of the Throat.* By ALFRED S. TAYLOR, M. D., F. R. S.

This paper embodies the report of a most interesting trial for murder, the victim having the trachea, common carotid artery, and internal jugular vein divided, and the murderer afterwards inflicting a slight wound upon his own throat with the view of establishing the theory which his counsel maintained at his trial, that the deceased had first attempted the prisoner's death, and failing in that, had committed suicide.

The medical testimony was clear, conclusive, and, we may add, consistent; the prisoner was convicted, and subsequently executed. The principal points of interest in the medical evidence were as to the power of motion or action after throat wounds, and the period required for the cooling of the body after death and the establishment of *rigor mortis*. As to the first point it appears that "when the great bloodvessels of the neck (carotid artery and internal jugular vein) are divided, death is not always or necessarily instantaneous, but the sudden and copious loss of blood (both arterial and venous) from such a wound prevents any muscular exertion or the performance of any voluntary act. [In such cases, however, the wounded persons have been known to run several yards before death (p. 127).] When, however, in addition to the great bloodvessels above mentioned, the windpipe is also completely divided, the cut end of this tube is either retracted into the soft parts or filled with blood, and in either case immediate suffocation results."

With regard to the cooling of the body after death in cases of hemorrhage, Dr. Taylor positively says, "The loss of blood as the cause of death does not affect the rate of cooling of the body." This, we consider, a most important statement, coming, as it does, from such high authority. It is in direct contradiction to the assertion of Dr. B. W. Richardson, in his interesting paper in the *Medical Critic and Psychological Journal* [vol. iii. pp. 24–35]. Dr. Taylor believes that *rigor mortis* in such cases rarely, if ever, begins in less than four or five hours, certainly in not less than two hours.

Medico-legal papers have always formed a marked feature of the volumes of

Guy's Hospital Reports, but we doubt if any of them has contained a more interesting or more important communication than this.

The next paper is called *Further Remarks on the Structure of the Growths within Ovarian Cysts.* By J. BRAXTON HICKS, M. D., F. R. S.—It is in continuation of a previous paper, by the author, in the volume of the Reports for 1864 [see No. of this Journal for April, 1865, p. 458], and is illustrated with a lithographic plate.

We find next an article *On Accumulation of Mucus within the Tympanum, and its Treatment by Incision of the Membrana Tympani.* By JAMES HINTON. "Cases of this kind present themselves in various forms, but those most frequently met with are—

"1. A severe catarrhal affection of the tympanum, connected with a similar condition of the faucial mucous membrane, but continuing unrelieved in spite of a successful treatment of the latter.

"2. A condition which is probably, at least sometimes, a subsequent stage of the same affection. In these cases the symptoms of local irritation have subsided, or may never have attracted attention, and there remains nothing but a variable degree of deafness with or without tinnitus. On examination, the membrana tympani is usually concave, and of a dull, white appearance, but at certain parts presents either (*a*) a yellowish or brownish hue, which the eye soon learns to recognize as due to the presence of a dark-coloured fluid in contact with its inner surface; (*b*), a *bulging*, of a silvery white or reddish colour, more often seated at the upper posterior part of the membrane than elsewhere; (c), thinner, and more transparent spots; often very much drawn in, but which, on inflating the tympanum with air, bulge prominently outwards, and are evidently filled with fluid, the bladder thus produced sometimes occupying more than half the membrane.

"In all this class of cases the only method of giving permanent relief appears to be the evacuation of the fluid by incision of the membrane, repeated as often as the necessity arises."

Particulars are given of four cases in which this treatment was adopted with more or less benefit.

The next paper is *On Acupressure and Torsion.* By J. COOPER FORSTER. Since the publication of his paper on acupressure in the last volume of the Reports, Mr. Forster has employed this method in nine cases (here detailed), with four deaths: One case proved fatal from secondary hemorrhage, one from pyæmia, one from hemorrhage and pyæmia combined, and one from pleuro-pneumonia following gangrene of the stump. Mr. Forster is now out of conceit with acupressure, and declares torsion to be the true method of controlling hemorrhage. The prediction which we ventured to make in our notice of his last paper is more than fulfilled. [See No. of this Journal for Oct. 1868, p. 477.] Mr. Forster's present view is expressed as follows: "The great recommendation for the employment of acupressure has been generally asserted to be that thereby adhesion —entire or almost entire—of the whole of the wound would more frequently occur than at present, but on reviewing the cases which have fallen under my notice, in no one instance has there been an entire absence of suppuration, with such complete adhesion as I had been led to expect and hope for. I must confess here to a certain amount of disappointment. I hear it also stated by the warmest advocate of acupressure, that torsion leaves a small piece of sloughy tissue in the wound which acts injuriously by preventing the entire adhesion of the surfaces. Supposing there to be truth in this statement, we are no worse off if we get no [more (?)] adhesion by acupressure than by torsion, and surely out of forty cases one or two at least might have afforded me a happy result." Mr. Forster has tired of acupressure even sooner than we expected: he is not yet, however, prepared to return to the ligature. "During the last two years, I have in no case used a ligature where any attempt has been made to obtain adhesion in the wound, nor where I have been able to practise torsion. It is thus difficult to see in what cases ligatures need be used at all." We may add that it is equally difficult to see, judging from his own reports, in what respect his patients have been the better for his change of practice.

We shall next consider *A Case of Epithelioma of the Œsophagus in which Gastrotomy was Performed; with Remarks.* By ARTHUR E. DURHAM.

The patient was an old man of seventy, operated on when already in the last stage of exhaustion, and died sixteen hours subsequently. The result, as Mr. Durham justly remarks, was not satisfactory, and to some may seem anything but encouraging. Mr. Durham refers to seven other cases of gastrotomy for œsophageal obstruction, in all of which the patients died, to which should be added Mr. Curling's case (likewise fatal), reported in the 3d volume of the *London Hospital Reports.* [See review in No. of this Journal for April, 1867, p. 459.] Mr. Durham thinks the operation a good one, and urgently recommends that it should be performed at an earlier stage of the disease than it has been hitherto. But, as pointed out by Mr. Hutchinson of the London Hospital [See No. of this Journal for April, 1869, p. 471], such a serious operation can never be properly proposed till the patient has immediate death in prospect, and then all experience shows that the operation will not be successful.

Mr. BRYANT contributes four papers, which we will now consider in succession.

The first is *A Case of Ovariotomy in a Child; with Remarks.*—The patient was a girl fourteen years old, and made a rapid recovery after the operation. The tumour weighed about four pounds, and "was more like the chronic ovarian tumour we find in the middle-aged than any of an acute kind. The thick and almost cartilaginous nature of the parent cyst-wall was very remarkable, for the tumour had apparently been only of six months' growth, yet it resembled more the thickened tunica vaginalis of an old hydrocele, than any other formation with which I am acquainted." The convalescence was uninterrupted, though marked by an attack of hæmaturia which lasted twenty-four hours. "It came and disappeared without any physical distress, and interfered in no way with the patient's welfare."

Cases Illustrating the Treatment of Suppurating Ovarian Cysts, and some Points connected with Ovariotomy.—In this paper Mr. Bryant narrates four extremely interesting cases; one of suppuration of an ovarian cyst, successfully treated by free incision of the sac; one of suppuration of an ovarian tumour, attempted ovariotomy (not by Mr. Bryant), subsequent sloughing of the cyst, and unexpected recovery; a case of ovariotomy in which the peduncle was ligated, the ligatures being cut short and returned into the cavity of the abdomen whence they were subsequently discharged through an artificial anus at the lower part of the wound, the patient eventually recovering; and finally a curious case, already published, of menstruation from the peduncle of an ovarian tumour which had been fixed externally by means of a clamp.

Case of Hydatid Tumour of the Abdomen, simulating Ovarian Disease, treated successfully by Operation; with Remarks.—This is an interesting and important case, and may usefully be compared with those of hydatid disease of the liver treated by operation, embraced in Dr. John Harley's tables in the *Medico-Chirurgical Transactions*, vol. xlix. pp. 104–145. "The free opening into the cyst," says Mr. Bryant, "and the care that was subsequently taken to wash out its contents and prevent anything like retention of purulent discharge, are the main points to which I would draw attention in its treatment. I would wish it to be read in connection with the observations I have already made in this volume on the treatment of suppurating ovarian cysts, for it tends to support the practice I have there suggested."

Mr. Bryant's last paper is *A Case in which Aneurisms of the Two Popliteal Arteries were Cured by Digital Pressure; the One in twenty-four hours by Students, the Other in four hours and a half by the Patient; with Remarks.*—We do not think it exactly fair for the advocates of the pressure treatment of aneurism to report their cases as cured in so many hours, when in fact the whole treatment may have lasted as many days. Thus, in the case now under consideration, though twenty-four hours' pressure was at last efficient in producing a cure of the first aneurism, yet pressure had previously been employed without benefit, at intervals, for nearly three weeks. In a case in which we tied the femoral artery, some years since, for popliteal aneurism, the ligature broke at the moment of tightening the knot, and the vessel was left unprotected; yet owing to the division and curling up of the inner coats of the artery, pulsation in the sac had already ceased. We thought it right to apply a second ligature in the track of that which was broken off, but doubt not that recovery would have been equally satisfactory had we omitted this precaution; and the case might then have been reported as an aneurism cured by the ligature in about twenty seconds. We note one point of importance, which is that Mr. Bryant denies the correctness of the modern doctrine that partial arrest of the circulation through an aneurismal sac is sufficient to effect a cure, and maintains that "the details of the case above fairly prove it to be essential for a speedy cure, that the flow of blood through the aneurism should be completely arrested, and that an intermittent flow of blood through the sac is unsatisfactory and unsuccessful."

We shall next consider *Two Cases of Colloid Cancer of the Large Intestine.* By J. COOPER FORSTER.

In the first case, the disease affected the descending colon, sigmoid flexure, and rectum. Lumbar colotomy was attempted on the left side, but the bowel was found empty. Mr. Forster proposed to repeat the operation on the right side, opening the ascending colon, but the proposition was not agreed to. The wound healed in four days, but the patient was of course unrelieved, and finally died of exhaustion, thirty-eight days after the operation, and eighty-eight days from the date of the last fecal evacuation. A post-mortem examination showed that the operation of *right* lumbar colotomy would have been successful in relieving the distended bowel. The second case was in a young man aged twenty-two; here colotomy afforded great relief, though the patient sank twenty-two days after the operation.

We find next an elaborate paper *On Erectile Tumours of the Foot.* By ALFRED POLAND.

The patient, whose case Mr. Poland himself had the opportunity of observing, was a girl of nineteen, who ten years before had received a severe blow between the metatarsal bones of the fourth and fifth toes, from a writing desk falling on her foot. The injury was at that time supposed to be a sprain. Some time afterwards a swelling appeared on the dorsum of the foot and gradually increased; seven years later, after an attack of scarlet fever, a swelling likewise appeared upon the sole. A week after her admission to Guy's Hospital, an exploratory incision gave exit to a continuous stream of arterial blood. A fortnight later "there was a decided but very feeble pulsation in the tumour; the expansion, equally diffused over the swelling, corresponded with the arterial pulse. . . . . . . Pressure on the dorsalis pedis artery seemed to have perfect control over the pulsation; compression thereof not only arrested it, but diminished the tumour. . . . The case was considered to be possibly one of traumatic aneurism with a cirsoid condition of the arteries on the dorsum of the foot." Ligation of the dorsalis pedis artery was performed with apparent success, though the benefit was but temporary. In three weeks the pulsating tumour reappeared. Ligation of the posterior tibial artery was now performed, and the patient left the hospital apparently well. In less than a month however she returned, the tumour on the dorsum having reappeared, and this time the anterior tibial artery was tied, the patient being again apparently cured by the operation. On each occasion the vessel ligated was found to be much enlarged, and to have very thin walls. She was subsequently readmitted, with a return of the tumour, and treated by the internal administration of the acetate of lead without benefit. Finally the disease was definitively got rid of by amputation below the knee. Mr. Poland adds the histories of five other cases collected from various sources, and discusses at some length the nature and pathology of the affection, and gives reasons for the name which he has adopted to designate the disease in question.

Mr. H. G. HOWSE, M. S., in the next paper describes *The Anatomy and Microscopical Structure of Mr. Poland's Specimen*, his description being illustrated with two plates, one of them partially coloured.

We next come to *Notes of Abnormalities Observed in the Dissecting-room during the Winter Sessions of* 1866–7 *and* 1867–8. By JAMES BANKART, M. B., P. H. PYE-SMITH, M. D., and J. J. PHILLIPS, M. D.

A great many curious facts are detailed in this communication, which is, however, not one of which it is possible to give an analysis; we must content ourselves with the following quotation: "The most important visceral abnormality which has occurred during the last two winters was complete transposition of all the thoracic and abdominal viscera, together with the great vessels (*Path. Trans.*, xix. 447). In this, as in most other recorded cases, the transposed viscera were normal in every other respect. . . . . This remarkable arrangement has been observed very frequently since Riolan described the first case, that of an executed criminal in the year 1668. It appears to be more common than transposition of the thoracic or abdominal viscera, or of the aorta and its branches alone; it has been recognized during life,[1] and is proved by the case here recorded, and by several others, to have nothing to do with the peculiarity of left-handedness. It seems difficult to form any theory to explain its occurrence. Von Baer found in one case (that of a fœtal duck) a change in the position of the umbilical vesicle, which he thought might throw some light on the abnormality. Virchow has suggested a reversed twisting of the umbilical cord. If we knew what causes govern the reversed bilateral arrangement not unfrequently observed in univalve mollusks, it would probably throw light upon similar transpositions in the higher animals."

In the next paper, Mr. C. BADER gives the third series of his valuable communications under the title of *The Human Eye in Health and Disease, as seen with the Ophthalmoscope.* Two beautifully coloured plates, each containing three figures, accompany this paper, and illustrate respectively the ophthalmoscopic appearances of the optic disk and surrounding parts in cases of protrusion of the eyeball from a new growth in the orbit, stage of hyperæmia preceding inflammation, stage of inflammation, and stage of atrophy subsequent to inflammation.

On the Structure of two forms of Tooth-Tumour. By S. J. A. SALTER, M.B., F.R.S.

Adopting the name proposed by M. Broca, "*Odontome*," Mr. Salter, in this paper, describes two forms of tooth-tumour which the French surgeon omitted from his list, and which are both of considerable interest. The first is a "*tooth-tumour consisting of an hypertrophied aberrant fang*," and is of very rare occurrence, there being in fact but three examples known; and each of these has, in Mr. Salter's opinion, been misinterpreted, having been described respectively by Forget, Tomes, and Heath, as exostoses. The second form of odontome is of comparatively frequent occurrence, and consists of an "*enamel nodule or submerged cusp*" on a tooth-fang. In a supplementary note, Mr. Salter says that he has just seen a description and figures of these odontomes in a recently published German work by Profs. Heider and Wedl. Mr. Salter's own observations are illustrated with two lithographic plates and three wood-cuts.

The last paper is called *Contributions to the Practical Surgery of New Growths or Tumours; Series VI.; Cartilaginous and Bony Growths (continued).* By JOHN BIRKETT.

A number of interesting cases of cartilaginous growths occurring in the parotid region, the testicle, muscular tissues, etc., and of exostoses growing in different parts of the body are narrated, with descriptions of the morbid anatomy of the various specimens. The paper is adorned with four lithographic plates, and forms a valuable addition to the literature of its subject.

In concluding our notice of this the twenty-ninth volume issued by the staff of Guy's Hospital, we cannot but express our admiration for the constant excellence of the successive volumes, and the untiring industry and care of the various contributors. Without any wish to disparage the reports issued from other hospitals, we cannot blind ourselves to the fact that the "Guy's" are, as yet, unequalled. We would respectfully commend this most valuable publication to the attention of hospital staffs, both at home and abroad, as a model which, if not possible to rival, may at least be measurably imitated.

J. A., JR.

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[1] See Dr. James H. Hutchinson's case, published in the number of this Journal for July, 1868, p. 294.